



ALKALINE PHOSPHATASE from *E. coli* (Lot 160701b)

Recombinant

E-ALPEC

(EC 3.1.3.1) Orthophosphoric-monoester phosphohydrolase (alkaline optimum)

CAS: 9001-78-9

06/18

PROPERTIES

1. ELECTROPHORETIC PURITY

- Single band on SDS-gel electrophoresis (MW ~ 50,503)
- Single major band on Isoelectric focusing (pI ~ 6.0)

2. SPECIFIC ACTIVITY

3 U/mg protein at pH 10.4 and 37°C.

One Unit of alkaline phosphatase is defined as the amount of enzyme required to produce one μ mole of *p*-nitrophenol from 4-nitrophenyl phosphate per minute at 37°C measured at 410 nm under the following assay conditions:

Glycine buffer, pH 10.4	95.3 mM
4-Nitrophenyl phosphate (4-NPP)	4 mM
MgCl ₂	1 mM
ZnSO ₄	0.1 mM

3. SPECIFICITY:

Catalyses the reaction:

A phosphate monoester + H₂O = an alcohol + phosphate

4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 10.4 and up to 37°C.

5. STORAGE AND USE CONDITIONS/RECOMMENDATIONS:

The enzyme is supplied as an ammonium sulphate suspension containing 1 mM magnesium chloride and 0.1 mM zinc sulphate and should be stored at 4°C. For assay, this enzyme should be diluted in assay buffer containing 1 mM magnesium and 0.1 mM zinc. **Swirl to mix the enzyme suspension immediately prior to use.**